

PCT

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/509,622

DATE: 10/06/2004 TIME: 16:11:42

Input Set : A:\Q83855 Sequence Listing.txt
Output Set: N:\CRF4\10062004\J509622.raw

3 <110> APPLICANT: Yamanouchi Pharmaceutical Co. Ltd Masakatsu KAWAKAMI 6 <120> TITLE OF INVENTION: NOVEL OXIDASE 8 <130> FILE REFERENCE: Q83855 C--> 10 <140> CURRENT APPLICATION NUMBER: US/10/509,622 C--> 10 <141> CURRENT FILING DATE: 2004-09-29 10 <150> PRIOR APPLICATION NUMBER: PCT/JP03/07148 11 <151> PRIOR FILING DATE: 2003-06-05 13 <150> PRIOR APPLICATION NUMBER: JP 2002-165612 14 <151> PRIOR FILING DATE: 2002-06-06 16 <150> PRIOR APPLICATION NUMBER: JP 2002-060749 17 <151> PRIOR FILING DATE: 2003-03-07 19 <160> NUMBER OF SEQ ID NOS: 13 21 <170> SOFTWARE: PatentIn version 3.1 23 <210> SEQ ID NO: 1 24 <211> LENGTH: 1548 25 <212> TYPE: DNA 26 <213> ORGANISM: Homo sapiens 28 <220> FEATURE: 29 <221> NAME/KEY: CDS 30 <222> LOCATION: (1)..(1548) 32 <400> SEQUENCE: 1 33 atg gga aac tgg gtg gtt aac cac tgg ttt tca gtt ttg ttt ctq qtt 48 34 Met Gly Asn Trp Val Val Asn His Trp Phe Ser Val Leu Phe Leu Val 37 gtt tgg tta ggg ctg aat gtt ttc ctg ttt gtg gat gcc ttc ctg aaa 96 38 Val Trp Leu Gly Leu Asn Val Phe Leu Phe Val Asp Ala Phe Leu Lys .20 41 tat gag aag gcc gac aaa tac tac tac aca aga aaa atc ctt ggg tca 144 42 Tyr Glu Lys Ala Asp Lys Tyr Tyr Tyr Thr Arg Lys Ile Leu Gly Ser 45 aca ttg gcc tgt gcc cga gcg tct gct ctc tgc ttg aat ttt aac agc 192 46 Thr Leu Ala Cys Ala Arg Ala Ser Ala Leu Cys Leu Asn Phe Asn Ser 47 49 acg ctg atc ctg ctt cct gtg tgt cgc aat ctg ctg tcc ttc ctg agg 50 Thr Leu Ile Leu Pro Val Cys Arg Asn Leu Leu Ser Phe Leu Arg 70 53 ggc acc tgc tca ttt tgc agc cgc aca ctg aga aag caa ttg gat cac 288 54 Gly Thr Cys Ser Phe Cys Ser Arg Thr Leu Arg Lys Gln Leu Asp His 85 90 57 aac ctc acc ttc cac aag ctg gtg gcc tat atg atc tgc cta cat aca 336 58 Asn Leu Thr Phe His Lys Leu Val Ala Tyr Met Ile Cys Leu His Thr



100

59

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			•														
	gct					-		_				_	-			_	384
	Ala	Ile		Ile	Ile	Ala	His	Leu 120	Phe	Asn	Phe	Asp	_	Tyr	Ser	Arg	
63	agc	aaa	115	aaa	202	a a t	aaa		att	acc	taa	att	125	taa	agg	ct'a	432
	Ser																7,2
67		130	01			TIDE	135	001	LCu		501	140	200	DC1 ,	501	Lea	
	tct		qat	gag	aaa	aaq		aat	tct	taa	cta		ccc	atc	caq	tcc	480
	Ser		-	-		_											
	145		_		-	150	_	-		_	155		*			160	
73	cga	aac	acg	aca	gtg	gag	tat	gtg	aca	ttc	acc	agc	gtt	gct	ggt	ctc	528
	Arg	Asn	Thr	Thr	Val	Glu	\mathtt{Tyr}	Val	Thr	Phe	Thr	Ser	Val	Ala	Gly	Leu	
75					165					170					175		
	act				_			_	_			_	_			_	576
	Thr	GLY	vai		Met	Thr	шe	Ата		ше	Leu	мет	vaı		ser	Ala	
79	act	~~~	++a	180	aaa	200	act	+ = +	185	an n	at a	++-	+ ~~	190	act	aaa	624
	Thr																024
83		014	195	***	**** 9	****	001	200		Olu	vai		205	- 7 -			
	cac	ctt		atc	ttc	tat	atc		qqc	tta	qqq	att		qqc	att	qqt	672
	His																
87		210		•		=	215		_		_	220		_			
	gga		_							_	_						720
	Gly	Ile	Val	Arg	Gly	Gln	Thr	Glu	Glu	Ser	Met	Asn	Glu	Ser	His		
	225					230					235					240	
	cgc																768
95	Arg	гÀг	Cys	Ala	245	ser	Pne	GIU	met	250	Asp	Asp	Arg	Asp	255	HIS	
	tgt	agg	cac	cct	_	+++	gaa	aaa	cat		cct	gag	tct	taa		taa	816
	Cys																010
99	_	5	5	260	-1-			1	265					270	-1-		
10	1 ato	ctt	gca	a ccg	gto	att	ctt	tat	ato	: tgt	. gaa	agg	ato	cto	cgg	, ttt	864
10	2 Ile	e Lei	ı Ala	a Pro	Val	. Ile	Lev	туг	: Ile	Cys	Glu	. Arg	j Il€	e Let	ı Arg	Phe	
10			275					280					285				
	5 tac																912
	6 Ty	-		r Gln	Glr	Lys			. Ile	Thr	Lys			Met	His	Pro	
10		290			. ~~~	. ++-	295					300			+.		960
	9 tco 0 Sei		-	_	_	_	_	_		_	_			_		_	300
	1 305	_	o val	т пеа	GIU	310		ı Met	. ASI	глуа	315	_	FIIC	. Der	. Mec	320	
	3 gtg		a cac	a tat	ato			aat	. tac	ccc			tct	cto	cto		1008
	4 Va			_			_		_						_	_	
11				•	325				-	330					335		
	7 tgg																1056
	8 Trp	His	Pro			Leu	Thr	Ser	Ala	Pro	Glu	Glu	ı Asp			Ser	
11				340					345					350			
	1 att																1104
	2 Ile	His			ALA	. Ala	GLY			Thr	. GIu	Asr			Arg	Ala	
12		. ~	355		. +	· 	~~-	360		~ ~		~~-	365		. ~~+	966	1157
12	5 ttc	: yaa	ı caa	ı caa	Lat	LCa	. cca	ו מננ	. ccc	agg	att	yaa	. gre	, yat	. ygt	. ccc	1152

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126 127	Phe	Glu 370	Gln	Gln	Tyr	Ser	Pro 375	ļlе	Pro	Arg	Ile	Glu 380	Val	Asp	Gly	Pro		*
129	ttt	aac	aca	acc	agt	gag	gat	att	ttc	caq	tat	gaa	ata	act	ata	cta	12	200
	Phe																	
	385	1				390					395					400		
	gtt	aas	aca	aas	att		ata	200	ccc	+++		tat	atc	tta	222		12	248
	Val		_								_							. 40
		GIY	AIA	Gry		Gry	vai	TIIL	PIO		Ата	Ser	116	пеп	415	261		
135					405					410								
	atc					_	_	_	_								12	296
	Ile	Trp	Tyr	-	Phe	GIn	Cys	Ala	-	His	Asn	Leu	ьуs		гуѕ	ьуs		
139				420					425					430	_			
	gtt			_	_				_	_	_		-		-		13	344
142	Val	${ t Gly}$	His	Ala	Ala	Leu	Asn	Phe	Asp	Lys	Ala	Thr	Asp	Ile	Val	Thr		
143			435				•	440					445					
145	ggt	ctg	aaa	cag	aaa	acc	tcc	ttt	ggg	aga	cca	atg	tgg	gac	aat	gag	13	392
146	Gly	Leu	Lys	Gln	Lys	Thr	Ser	Phe	Gly	Arg	Pro	Met	Trp	Asp	Asn	Glu		
147	•	450					455					460						
149	ttt	tct	aca	ata	gct	acc	tċċ	cac	ccc	aag	tct	gta	gtg	gga	gtt	ttc	14	40
150	Phe	Ser	Thr	Ile	Āla	Thr	Ser	His	Pro	Lys	Ser	Val	Val	Gly	Val	Phe		
	465					470				-	475			-		480		
	tta	tat	aac	cct	caa	act	tta	qca	aaq	agc	ctq	cqc	aaa	tqc	tat	cac	14	88
	Leu	_			_		_	_	_	_	-							
155		-1-	1		485				-1-	490		3	-1-	-1 -	495			
	cga	tat	tcc	aat		gat	cct	aga	aad		caa	ttc	tac	ttc		aaa	1 5	36
	Arg																	,,,,
159	_	T Y T	Der	500	Пец	тэр	110	nr 9	505	٧۵١	ÇIII	rne	- Y -	510	ASII	цуб		
		22t							505					310			1 5	48
	gaa Glu			Lya														740
163		ASII	515															
) - GT		. NO														
	<210																	
	<21				LO													
	<212				••													
	<213					sar	piens	5										
	<400						_		_				_		_			
	Met	GLY	Asn	Trp		Val	Asn	His	Trp		Ser	Val	Leu	Pne		vaı		
174					5		_	_		10	_				15			
177	Val	\mathtt{Trp}	Leu	_	Leu	Asn	Val	Phe		Phe	Val	Asp	Ala	Phe	Leu	Lys		
178				20		,			25					30				
181	Tyr	Glu	Lys	Ala	Asp	Lys	Tyr	Tyr	Tyr	Thr	Arg	Lys	Ile	Leu	Gly	Ser		
182			35					40				•	45					
185	Thr	Leu	Ala	Cys	Ala	Arg	Ala	Ser	Ala	Leu	Cys	Leu	Asn	Phe	Asn	Ser		
186		50					55					60						
189	Thr	Leu	Ile	Leu	Leu	Pro	Val	Cys	Arg	Asn	Leu	Leu	Ser	Phe	Leu	Arg		
	65					70		-	-		75			•		80		
	Gly	Thr	Cys	Ser	Phe	Cys	Ser	Ara	Thr	Leu	Ara	Lys	Gln	Leu	Asp			
194			•		85	•		,		90	ر	-			95			
	Asn	Leu	Thr	Phe		Lvs	Leu	Val	Ala		Met	Ile	Cvs	Leu		Thr		
198				100		-1-			105	- 1 -			- 2	110				
	Ala	Tle	Hic		Tle	Δla	Hie	Len		Agn	Phe	Asp	Cve		Ser	Ara		
201	mia	116	1113	110	110	111 C		u	1110	-1411	- 110	22010	~ Z S	- y -		****		

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Ser	202			115					120					125			
130		Ser	Ara		Ala	Thr	Asp	Glv		Leu	Ala	Ser	Tle		Ser	Ser	Leu
Ser His Asp Glu Lys Lys Gly Ser Trp Leu Ass Pro Ile Gln Ser Se			_				<u>F</u>	_			,						
145		Ser		Asp	Glu	Lvs	Lvs		Glv	Ser	Trp	Leu		Pro	Tle	Gln	Ser
213 Arg Asn Thr Thr Val Glu Tyr Val Thr Phe Thr Ser Val Ala Gly Leu 176 175 175 175 176 177 180				1105				0 -1	0- 1								
14			Asn	Thr	Thr	Val		Tvr	Val	Thr	Phe		Ser	Val	Δla	Glv	
The Signature The Signature Sign		my	11011	1111			Olu	- 7 -	var	1111		1111	DCI	V CL 1	nau	_	L Cu
180		Thr	Glv	Val	Tla		Thr	Tle	Δla	T.011	-	T.011	Met	Val	Thr		Δla
The Silve Blue Bree File Arg Arg Ser Tyr Phe Silve Val		1111	GIY	Val		Mec	1111	110	AIG		110	ысц	ricc	VUI		DCI	nια
195		Thr	Glu	Dhe		Ara	Ara	Sar	Туг		Glu	TeV	Dhe	Trn		Thr	Hic
1		1111	Oru		110	my	n-9	DCI	_	1110	Olu	Val	1110	_	- 7 -	1111	1110
226		Hic	T.211		Tle	Dhe	Тул	Tle		Glv	T.e.11	G1 v	Tle		Glv	Tle	Glv
Serial Control of Co		1110		1110	110	1110	- y -		ncu	O _T y	Вси	OLY		111.0	OLY	110	CLY
230 225 240 240 245		Glv		Val	Ara	Glv	Gln		Glu	Gİn	Ser	Met		Glu	Ser	His	Pro
233 Arg Lys Cys Ala Glu Ser Phe Glu Met Trp Asp Asp Asp Asp Ser His 256 255		_	ııç	val	n.y	GLY		1111	GIU	GIU			ASII	Giu	DCI	1110	
234 Cys Arg Arg Pro Lys Phe Glu Gly His Pro Glu Ser Trp Lys Trp 238 260 270 280 11e Leu Arg Ile Leu Arg Phe Phe Phe Phe Phe Phe Arg 1le Phe Arg Phe Arg Phe Arg Phe Arg Arg Arg Arg Phe Arg Arg <td></td> <td></td> <td>Lve</td> <td>Cvc</td> <td>Δla</td> <td>G111</td> <td></td> <td>Phe</td> <td>Glu</td> <td>Met</td> <td></td> <td></td> <td>Asn</td> <td>Δτα</td> <td>Δsn</td> <td>Ser</td> <td></td>			Lve	Cvc	Δla	G111		Phe	Glu	Met			Asn	Δτα	Δsn	Ser	
237 Cys		nr 9	цуз	Cys	nia		DCI	1110	Ora	1100		мор	пор	****9	тор		1110
238 260 265 270 241 11e Leu Ala Pro Val Ile Leu Tyr Ile Cys Glu Arg Ile Leu Arg Phe 282 285 300 285 300 300 300 325 320 325 320 325 320 335 335 335 335 335 335 325 325 335 335 325 325 335 326 325 325 <td></td> <td>Cvc</td> <td>Δra</td> <td>Δrα</td> <td>Pro</td> <td></td> <td>Phe</td> <td>Glu</td> <td>Glv</td> <td>Hic</td> <td></td> <td>Pro</td> <td>Glu</td> <td>Ser</td> <td>Trn</td> <td></td> <td>Trn</td>		Cvc	Δra	Δrα	Pro		Phe	Glu	Glv	Hic		Pro	Glu	Ser	Trn		Trn
241 Ile Leu Ala Pro Val Ile Leu Tyr Ile Cys Glu Arg Ile Leu Arg Phe 280 280 11e Thr Lys Val Val Met His Pro 285 18 Phe 18e		Cyb	my	mrg		цуз	1110	OIU	Ory		110	110	OIU	DCI		шуы	11.5
242 775 787 Ser Gln Gln Lys Val Val The Lys Val Val Val Val Wet His Pro 246 290 295 295 300 300 300 300 300 300 300 300 320 <td></td> <td>Tla</td> <td>T.211</td> <td>Δla</td> <td></td> <td>Val</td> <td>Tle</td> <td>T.eu</td> <td>Тъгъ</td> <td></td> <td>Cvc</td> <td>Glu</td> <td>Δra</td> <td>Tle</td> <td></td> <td>Δra</td> <td>Dhe</td>		Tla	T.211	Δla		Val	Tle	T.eu	Тъгъ		Cvc	Glu	Δra	Tle		Δra	Dhe
245 Tyr Arg Ser Gln Gln Lys Val Val Ile Thr Lys Val Val His Pro 246 290 Val Leu Glu Leu Gln Met Asn Lys Arg Gly Phe Ser Met Glu 230 320 320 320 320 320 320 320 320 320 320 325 320 330 Val Gly Glu Gly Ser Leu Glu Asp 320 325 320 330 Val 325 325 330 Val 380 Val Asp Phe Phe Phe Phe Thr Leu Thr Ser Ala Pro Glu Asp Phe Phe Phe Phe Arg Ala Ala Arg Phe Arg Ala Arg Ala Arg Ala Arg Ala Arg Arg <td></td> <td>110</td> <td>пси</td> <td></td> <td>110</td> <td>val</td> <td>110</td> <td>LCu</td> <td>_</td> <td>110</td> <td>Cys</td> <td>Olu</td> <td>nr 9</td> <td></td> <td>LCu</td> <td>9</td> <td>1110</td>		110	пси		110	val	110	LCu	_	110	Cys	Olu	nr 9		LCu	9	1110
246 290 Leu Glu Leu Gln Met Asn Lys Arg Gly Phe Ser Met Glu 250 305 Lys Val Leu Glu Leu Gln Met Asn Lys Arg Gly Phe Ser Met Glu 320 315 320 320 320 320 320 320 320 320 325 Val Gly Gln Tyr Ile Phe Val Asn Cys Pro 330 Ser Ile Ser Leu Leu Glu 320 330 330 330 330 330 330 335 335 335 335 335 335 330 335 330 335 355 336 336 355 355 355 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 360 360 360 360 360 360 360 360 365 360 <td< td=""><td></td><td>ጥህን</td><td>Δra</td><td></td><td>Gln</td><td>Gln</td><td>Tare</td><td>Val</td><td></td><td>Tla</td><td>Thr</td><td>Tare</td><td>Val</td><td></td><td>Met</td><td>Hic</td><td>Pro</td></td<>		ጥህን	Δra		Gln	Gln	Tare	Val		Tla	Thr	Tare	Val		Met	Hic	Pro
249 Ser Lys Val Leu Glu Leu Gln Met Asn Lys Arg Gly Phe Ser Met Glu 250 305 305 310 310 315 315 320 253 Val Gly Gln Tyr Ile Phe Val Asn Cys Pro Ser Ile Ser Leu Leu Leu Glu 254 30 30 30 30 335 335 350 257 Trp His Pro Phe Thr Leu Thr Ser Ala Pro Glu Glu Asp Phe Phe Ser 261 Ile His Ile Ala Gly Asp Trp Thr Glu Asp Ala Ala Ala Ala Ala Ala Ala Asp Ile Glu Val Asp Phe Ala Asp Ile Glu Val Ala Asp Ile Glu Val A		- y -	_	DCL	0111	0111	Lys		Val	110	1111	цуб		٧٨٢	rice	1115	110
250 305		Ser		Val	T.e.11	Glu	T.e.11		Met	Δen	Laze	Δra		Dhe	Ser	Met	Glu
253 Val Gly Gln Tyr Ile Phe Val Asn Cys Pro Ser Ile Ser Leu Leu Glu 325			 ,	•41		Olu		0111	1100	11011	_,5	_	017		001		
254 Trp His Pro Phe Phe Phe Thr Leu Thr Ser Ala Pro Glu Glu Asp Phe Phe Ser 345 257 Trp His Pro Phe Thr Leu Thr Ser Ala Pro Glu Glu Asp Phe Phe Ser 345 350 Trp His Pro Asp Phe Phe Ser 345 350 Trp His Pro Asp Phe Phe Ser 345 350 Trp His Pro Asp Phe Phe Ser 350 350 Trp His Pro Asp Phe Phe Ser Pro Asp Phe			Glv	Gln	Tt/r	Tle		Val	Δsn	Cvs	Pro		Tle	Ser	T.e.u	T.e.11	
257 Trp His Pro His Pro Phe Phe His Str His Pro His Pr		Val	O-y	0111	-7-		- 110	Vul	11011	Cys		501		001	ш		014
258 340 345 355 350 341 341 341 341 342 345 Trp Thr Glu Asn Leu Ile Arg Ala 365 362 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 360 360 365 360 360 360 360 360 360 360 360 360 360 360 360 360 <td></td> <td>Trn</td> <td>His</td> <td>Pro</td> <td>Phe</td> <td></td> <td>T.e.11</td> <td>Thr</td> <td>Ser</td> <td>Δla</td> <td></td> <td>Glu</td> <td>Glu</td> <td>Asn</td> <td>Phe</td> <td></td> <td>Ser</td>		Trn	His	Pro	Phe		T.e.11	Thr	Ser	Δla		Glu	Glu	Asn	Phe		Ser
261 Ile His Ile Arg Ala Ala Gly Asp Trp Thr Glu Asp Leu Ile Arg Ala 262 355 360 560 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 365 360 <td></td> <td>014</td> <td>014</td> <td></td> <td></td> <td></td> <td>502</td>												014	014				502
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265 Phe Glu Gln Gln Gln Tyr Ser Pro Ile Pro Arg Ile Glu Val Asp Gly Pro 266 370 375 375 380								U -1	_							5	
266 370 375 375 380 380 341 2		Phe	Glu		Gln	Tvr	Ser	Pro		Pro	Ara	Tle	Glu		Asp	Glv	Pro
269 Phe Gly Thr Ala Ser Glu Asp Val Phe Gln Tyr Glu Val Ala Val Leu 270 385						-1-	001				9					0-1	
270 385 390 395 400 273 Val Gly Ala Gly Ile Gly Val Thr Pro Phe Ala Ser Ile Leu Lys Ser 274 Ile Try Lys Phe Gln Cys Ala Asp His Asn Leu Lys Thr Lys L		Phe		Thr	Ala	Ser	Glu	-	Val	Phe	Gln	Tvr		Val	Ala	Val	Leu
273 Val Gly Ala Gly Ile Gly Val Thr Pro Phe Ala Ser Ile Leu Lys Ser 274 Ile Trp Tyr Lys Phe Gln Cys Ala Asp His Asn Leu Lys Thr Lys Ile Lys L			2											-			
274			Glv	Ala	Glv	Ile		Val	Thr	Pro	Phe		Ser	Ile	Leu	Lvs	
277 Ile Trp Tyr Lys Phe Gln Cys Ala Asp His Asn Leu Lys Thr Lys Lys 278 420 425 425 430 430 281 Val Gly His Ala Ala Leu Asn Phe Asp Lys Ala Thr Asp Ile Val Thr 445 445 445 282 435 435 440 440 445 445 445 285 Gly Leu Lys Gln Lys Thr Ser Phe Gly Arg Pro Met Trp Asp Asn Glu 460 450 450 455 450 460 460 480 289 Phe Ser Thr Ile Ala Thr Ser His Pro Leu Arg Lys Cys Cys His 470 475 475 480 480 293 Leu Cys Gly Pro Arg Thr Leu Ala Lys Ser Leu Arg Lys Cys Cys His 495 495 495 495 297 Arg Tyr Ser Ser Leu Asp Pro Arg Lys Val Gln Phe Tyr Phe Asn Lys			2		1		1										
278	,	Ile	Trp	Tvr	Lvs		Gln	Cvs	Ala	Asp		Asn	Leu	Lvs	Thr		Lvs
281 Val Gly His Ala Ala Leu Asn Phe Asp Lys Ala Thr Asp Ile Val Thr 282 - 435 - 435 Thr Ser Phe Gly Arg Pro Met Trp Asp Asn Glu 285 Gly Leu Lys Gln Lys Thr Ser Phe Gly Arg Pro Met Trp Asp Asn Glu 286 - 450 - 450 Thr Ile Ala Thr Ser His Pro Lys Ser Val Val Gly Val Phe 289 Phe Ser Thr Ile Ala Thr Ser His Pro Lys Ser Val Val Gly Val Phe 290 465 - 470 - 470 Thr Leu Ala Lys Ser Leu Arg Lys Cys Cys His 291 Leu Cys Gly Pro Arg Thr Leu Ala Lys Ser Leu Arg Lys Cys Cys His 292 Arg Tyr Ser Ser Leu Asp Pro Arg Lys Val Gln Phe Tyr Phe Asn Lys				- 4	_		•	-1						4		4	4
282		Val	Glv	His		Ala	Leu	Asn	Phe		Lvs	Ala	Thr	Asp		Val	Thr
285 Gly Leu Lys Gln Lys Thr Ser Phe Gly Arg Pro Met Trp Asp Asn Glu 286			2														
286		Glv	Leu		Gln	Lvs	Thr	Ser		Glv	Ara	Pro	Met		Asp	Asn	Glu
289 Phe Ser Thr Ile Ala Thr Ser His Pro Lys Ser Val Val Gly Val Phe 290 465		2		2		-1-				1	5						
290 465 470 475 480 293 Leu Cys Gly Pro Arg Thr Leu Ala Lys Ser Leu Arg Lys Cys Cys His 294 485 490 495 297 Arg Tyr Ser Ser Leu Asp Pro Arg Lys Val Gln Phe Tyr Phe Asn Lys		Phe		Thr	Ile	Ala	Thr		His	Pro	Lvs	Ser		Val	Glv	Val	Phe
293 Leu Cys Gly Pro Arg Thr Leu Ala Lys Ser Leu Arg Lys Cys His 294 485 490 495 297 Arg Tyr Ser Ser Leu Asp Pro Arg Lys Val Gln Phe Tyr Phe Asn Lys											1 -				- 2	—	
294 485 490 495 297 Arg Tyr Ser Ser Leu Asp Pro Arg Lys Val Gln Phe Tyr Phe Asn Lys			Cys	Glv	Pro	Ara		Leu	Ala	Lys	Ser		Ara	Lys	Cys	Cys	
297 Arg Tyr Ser Ser Leu Asp Pro Arg Lys Val Gln Phe Tyr Phe Asn Lys			- 2 -	2		-				-1-				1-	- 1 -		
		Ara	Tvr	Ser	Ser		Asp	Pro	Ara	Lvs		Gln	Phe	Tvr	Phe		Lys
	298	ر	4				- 12		ر					4			-

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305 <210> SEQ ID NO: 3	
306 <211> LENGTH: 28	
307 <212> TYPE: DNA	
308 <213> ORGANISM: Homo sapiens	
310 <400> SEQUENCE: 3	
311 gaagggetee aaaccaecte ttgacaat	28
314 <210> SEQ ID NO: 4	
315 <211> LENGTH: 30	,
316 <212> TYPE: DNA	•
317 <213> ORGANISM: Homo sapiens	• :
319 <400> SEQUENCE: 4	
320 aaaatgcaga ttaccgtcct tattccttaa	30
323 <210> SEQ ID NO: 5	
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325 <212> TYPE: DNA	
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333 <211> LENGTH: 21	
334 <212> TYPE: DNA	
335 <213> ORGANISM: Homo sapiens	
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344 <213> ORGANISM: Homo sapiens	
346 <400> SEQUENCE: 7	•
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352 <212> TYPE: DNA	
353 <213> ORGANISM: Homo sapiens	
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362 <213> ORGANISM: Homo sapiens	·
364 <400> SEQUENCE: 9	
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368 <210> SEQ ID NO: 10	
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370 <212> TYPE: DNA	
371 <213> ORGANISM: Homo sapiens	
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VERIFICATION SUMMARY

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DATE: 10/06/2004

PATENT APPLICATION: US/10/509,622

TIME: 16:11:43

Input Set : A:\Q83855 Sequence Listing.txt
Output Set: N:\CRF4\10062004\J509622.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date